



本公司船体结构用钢板通过ABS、BV、CCS、DNV、KR、LR、NK、RINA、RS船级社工厂认可。

|              |                         |                       |                                   |           |  |               |       |                  |              |
|--------------|-------------------------|-----------------------|-----------------------------------|-----------|--|---------------|-------|------------------|--------------|
| CUSTOMER     | MANUCHAR STEEL N.V      | PRODUCT               | Structural Steel Plates for Ships |           |  | DELTA I L NO. | 虚拟发运  | CERTIFICATE NO.  | ZB124X011185 |
| PURCHASER    | 新钢公司九江分公司XGEC-123110129 | SPECIFICATION         | LR Rules                          |           |  | QTY           | 4     | DATE OF ISSUE    | 2024-01-17   |
| CONTRACT NO. | XGEC-123110129          | STATE OF DELIVERY (6) | AR                                | TRAIN NO. |  | TOTAL MT      | 5.516 | DATE OF DELIVERY |              |

| NO | PLATE ID.    | HEAT NO.   | STEEL GRADE | MATERIAL DESCRIPTION |       |        |     |        | CHEMICAL COMPOSITION % |      |      |      |       |       |      |      |      |       |      |      |
|----|--------------|------------|-------------|----------------------|-------|--------|-----|--------|------------------------|------|------|------|-------|-------|------|------|------|-------|------|------|
|    |              |            |             | THICK                | WIDTH | LENGTH | QTY | WEIGHT | 分析区分 (1)               | C    | Si   | Mn   | P     | S     | Cr   | Ni   | Cu   | Als   | Mo   | Ceq  |
|    |              |            |             | mm                   |       |        | MT  |        |                        |      |      |      |       |       |      |      |      |       |      |      |
| 1  | Z24A0735.2.1 | J47-00254A | LRB         | 6                    | 2440  | 12000  | 1   | 1.379  | L                      | 0.16 | 0.19 | 0.64 | 0.013 | 0.009 | 0.05 | 0.02 | 0.03 | 0.003 | 0.01 | 0.27 |
| 2  | Z24A1016.1.1 | J49-01317A | LRB         | 6                    | 2440  | 12000  | 1   | 1.379  | L                      | 0.16 | 0.18 | 0.63 | 0.021 | 0.008 | 0.07 | 0.02 | 0.03 | 0.003 | 0.01 | 0.27 |
| 3  | Z24A6061.2.1 | J49-01210A | LRB         | 6                    | 2440  | 12000  | 1   | 1.379  | L                      | 0.14 | 0.17 | 0.65 | 0.016 | 0.005 | 0.06 | 0.02 | 0.04 | 0.014 | 0.01 | 0.25 |
| 4  | Z24A6061.4.2 | J49-01210A | LRB         | 6                    | 2440  | 12000  | 1   | 1.379  | L                      | 0.14 | 0.17 | 0.65 | 0.016 | 0.005 | 0.06 | 0.02 | 0.04 | 0.014 | 0.01 | 0.25 |

| NO | PLATE ID.    | 试验区分 (2) | 拉伸试验 TENSILE TEST |      |            |           |           | 冲击试验 IMPACT TEST |          |      |      |      |      |      |  |  |  |  |  |  |  |  |  |  |  |  |
|----|--------------|----------|-------------------|------|------------|-----------|-----------|------------------|----------|------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|--|--|
|    |              |          | 位置方向 (3)          | 温度 T | 屈服 Y.S ReH | 抗拉 T.S Rm | 伸长率 E.L A | 位置方向 (3)         | 试样尺寸 (4) | 温度 T | KV2  |      |      |      |  |  |  |  |  |  |  |  |  |  |  |  |
|    |              |          |                   |      |            |           |           |                  |          |      | 1    | 2    | 3    | AVE  |  |  |  |  |  |  |  |  |  |  |  |  |
|    |              |          | °C                | MPa  | MPa        | %         | °C        | J                | J        | J    | J    |      |      |      |  |  |  |  |  |  |  |  |  |  |  |  |
| 1  | Z24A0735.2.1 | H        | T                 | 室温   | 359        | 461       | 30.5      | L                | C        | 0    | 64.5 | 68.9 | 65.0 | 66.1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 2  | Z24A1016.1.1 | H        | T                 | 室温   | 352        | 472       | 32.5      | L                | C        | 0    | 65.9 | 67.9 | 61.4 | 65.1 |  |  |  |  |  |  |  |  |  |  |  |  |
| 3  | Z24A6061.2.1 | H        | T                 | 室温   | 343        | 449       | 35.0      | L                | C        | 0    | 79.4 | 78.9 | 84.2 | 80.8 |  |  |  |  |  |  |  |  |  |  |  |  |
| 4  | Z24A6061.4.2 | H        | T                 | 室温   | 343        | 449       | 35.0      | L                | C        | 0    | 79.4 | 78.9 | 84.2 | 80.8 |  |  |  |  |  |  |  |  |  |  |  |  |

|                                 |   |  |  |
|---------------------------------|---|--|--|
| WORKS APPROVAL NO. LR22268112WA | 备注 REMARKS  | Mill Test Certificate according to EN 10204 3.2  |  |
|                                 | 注释 NOTES  | (1)分析区分 ANALYSIS: L=熔炼分析 LADLE ANALYSIS. P=成品分析 PRODUCT ANALYSIS. (2)试验区分 SAMPLING POSITION: B=尾部 BOTTOM. H=头部 TOP. A=任意 Any (3)位置方向 LOCATION AND ORIENTATION: T=横向 TRANS L=纵向 LONGI. Z=厚度方向 THROUGH-THICK. (4)试样尺寸 SPECIMEN SIZE: A=10*10*55; B=10*7.5*55; C=10*5.0*55. (5)Z向断面收缩率 THROUGH THICKNESS REDUCTION IN AREA. (6)交货状态 STATE OF DELIVERY: N=正火 NORMALIZED. Q=淬火 QUENCHED. T=回火 TEMPERED. A=退火 ANNEALED. CR=控制轧制 CONTROLLED ROLLED. TM=TMCP. AR=热轧 AS HOT ROLLED. (7)当化学分析显示为“0”时表示检测出的该元素含量≤0.0005%。When the chemical analysis is shown as "0", it means that the content of the element detected is ≤0.0005%. (8)Ceq=C+Mn/6 |  |
| LR CONTROL NO: GZU 2400085      | 兹证明本材料按认可的工艺规程制造,并按英国船级社规范进行了试验,且各项要求均已满足。<br>We hereby certify that the material has been made by an approved process and satisfactorily tested in accordance with the Rules of Lloyd's Register.<br>该船板厚度公差符合 IACS UR W 13 的要求。<br>The thickness of hull plates are complied with requirement of IACS UR W13. |  |  |